



# **The University of Montana Western**

## **Life Safety, Code, & Deferred Maintenance List**

**2020-2021 LRBP Request &  
Deferred Maintenance Plan for compliance with  
Regents Policy # 901.6**

# The University of Montana Western Life Safety, Code & Deferred Maintenance List 2020-2021 LRBP Request

## Life Safety/Code

- **Renovation of Block Hall** **\$12,000,000**

(Life Safety/Deferred Maintenance)

Block Hall presently houses the Environmental Science and Biology programs, which are two of the fastest growing departments at The University of Montana Western. There are six wet labs in use, with three being on the third floor and three on the second floor. Some of these lab spaces contain fume hoods, but the lab's ventilation is part of the entire building's air circulation system. This results in contaminated air from the labs being redistributed throughout the rest of the building in the event of an accident. The labs almost entirely contain original equipment from the building's construction in 1969 and are in desperate need of upgrades.

The scope of the proposed Block Hall project would include a renovation and asbestos abatement of the existing building in order to update obsolete classroom and laboratory spaces. This renovation is required to accommodate the growing Science programs and bring the building up to modern life safety and air quality code. Along with the need for increased space, modern laboratory equipment and ventilation systems are required to provide a safe learning and laboratory environment. The building will be reprogrammed and offer the updated classroom and lab spaces required to safely accommodate these rapidly growing science and mathematics programs.

- **Emergency Access Roadway** **\$750,000**

(Life Safety/Fire Access)

Due to poor and unsafe access on the east side of campus, a new access road and fire lane is needed. This project would provide a new fire lane access that would extend from Cornell Street to the P.E. Complex. The P.E. complex was constructed in a hillside on the east side of campus. The grading in the vicinity of this complex has created several roadway, walking, and parking areas with steep inclines. This has resulted in several incidents where vehicles have slid off the road and pedestrians have fallen and been injured in icy or slick conditions.

In addition, the existing road does not accommodate emergency vehicles. It is an area of critical concern for the Dillon Fire Department. A new fire access lane will improve parking access, resolve the severe incline of various areas, improve service and delivery access and solve the emergency vehicle access problem.

- **Seismic Stabilization Throughout Campus** **\$100,000**

(Life Safety)

In 2010, The University of Montana Western campus had Tier 1 evaluations completed per the ASCE 31-03 Seismic Evaluation of Existing Buildings. These reports provided immediate, mid-term, and long-term recommendations to ensure any stability issues are addressed. Many of the older buildings are in need of a Tier 2 evaluation to better identify any potential structural issues. This project would fund Tier 2 then Tier 3 evaluations on the recommended buildings.

- **Emergency Generator for Safe Refuge Area** **\$70,000**

(Life Safety)

The University of Montana Western facilities are a designated location for safe refuge during inclement weather emergencies and other catastrophic emergencies such as earthquakes. As such, UMW requires redundancies for heat and electricity to sustain up to several hundred students and community members for safe refuge until the emergency conditions have passed. Electrical generation for heat and lights and other emergency medical services is required. The University has acquired a 175 KW generator and needs funds to properly connect the generator to the facilities.

- **Disability Access Renovations** **\$750,000**

(Code/Life Safety)

The Atlantic Street interface with campus needs to be redesigned and repaired. The entire sidewalk and retaining wall along the street has degraded and is crumbling. The sidewalk is currently as much as three feet above the level of the street and does not allow ADA access to the entire front side of campus. The sidewalk needs to be removed, and rebuilt with provisions for ADA access to the campus.

The campus has many aging elevators and ADA lifts in service that require constant attention from factory technicians. The Block Hall elevator was installed in the 1970s and many components are in need of an upgrade. A few of the ADA lifts are difficult to keep operational and are in need of replacement.

- **Replace Sidewalks on Campus** **\$150,000**

(Code/Life Safety)

This project is intended to replace only the most severely damaged sidewalks on the campus. The cracked and broken concrete sidewalks are in a state of disrepair, and many have been patched so many times that total replacement is necessary. This project will make the campus more accessible to people with disabilities, alleviate tripping hazards and improve the aesthetic quality of the campus.

- **Enhance Campus Lighting** **\$100,000**

(Life Safety/Deferred Maintenance)

The Montana Western campus grounds and buildings contain many light fixtures of varying types. Upgrading light fixtures is an ongoing process that lowers the campus utility cost, lowers ongoing maintenance costs, and increases safety/security by reliably keeping the necessary areas properly illuminated.

Currently, a majority of the campus utilizes fluorescent lighting. The existing fluorescent fixtures and ballasts need to be replaced with LEDs in order to reduce utility and maintenance costs.

The campus has many different light poles from different eras. Many have been retrofitted with LED lights to lower operation and maintenance costs, but there are several poles that need to be completely replaced due to damage.

- **Campus Key System Replacement – Electronic Access** **\$750,000**

(Life Safety/Deferred Maintenance)

The current campus lock system utilizes a combination of master keys and individual keys for specific locks that are checked out to individuals on an as needed bases. An electronic card access lock system is needed in order to increase security to buildings and sensitive spaces inside. The electronic lock system is also necessary to allow the Campus to perform immediate lockdowns when necessary.

## **Deferred Maintenance**

- **Repair/Replace Utilities; Electrical & Mechanical Upgrades** **\$500,000**

(Code/Deferred Maintenance)

The campus has many outdated and obsolete mechanical and electrical systems that are in need of replacement. Some existing electrical systems are no longer adequate for the current electrical loads and lack the reliability and safety required for continued operation.

- Campus Electrical Primaries:
  - Many buildings are still utilizing very old electrical primary services. The primary conductors and transformers need to be replaced in order to maintain reliable power distribution to the campus.
- Business and Technology Building:
  - Replace the remaining original wiring. Many areas in this building still utilizes original wiring and load panels from 1924.

- Administration building:
  - The electrical panels serving the main floor and the basement have no more breaker spaces available. These panels and the associated circuits have not been upgraded since the building was constructed in 1969. Many areas are in need of increased capacity to accommodate modern office equipment.
- Business and Technology Building:
  - Return air ducting needs to be installed in order to reduce overheating the building in the summer and decrease steam usage in the winter. The system needs to have individual zone control with VAVs to avoid over ventilating unoccupied spaces.

- **Repair/Replace Water and Sewer Systems** **\$100,000**

(Deferred Maintenance)

Several portions of the domestic water supply and sewer systems are outdated and reaching their effective end of life. For example, areas from the secondary sewer line from Main Hall to the city sewer as well as campus sewer lines from the Business & Technology Building and Mathews Hall to Cornell Street are deteriorating. These lines have collapsed on a couple occasions and backed up the entire building. This project will repair or replace portions of the domestic water supply and campus sewer system.

The campus irrigation consists of many different systems that have been installed over last fifty years. Many of the valves no longer close completely and many areas are still hand watered with hoses and above ground sprinklers. Several large main line valves need to be replaced to stop the loss of irrigation water, and automatic sprinklers need to be installed in several areas. This will reduce both water usage, and the labor needed to manually move sprinklers.

- **Campus Wide Building Envelopes including Roof Replacements** **\$423,000**

(Deferred Maintenance)

Various envelope projects are required across campus including repairing foundations, windows, tuck pointing masonry joints, exterior painting/sealing, and roof replacements. The Business and Technology building was constructed in 1924 and is in need of foundation repairs, window replacement, and roof replacement. Similar conditions occur at the Engineers House, the Chancellor's Residence, and the Main Hall elevator tower. The Library/Admin Building still utilizes the original single pane aluminum windows. These poorly insulated windows make it very difficult to maintain a comfortable environment for the occupants and are the source of a large amount of energy loss.

- **Classroom Renovations** **\$100,000**

(Deferred Maintenance)

The University of Montana Western’s inventory of classroom and teaching laboratories has a wide range of deferred maintenance and upgrade needs. This request is for funding to continue upgrading furnishings, media, and finishes in classroom facilities.

- **Campus Wide Carpet and Flooring Replacement** **\$80,000**

(Deferred Maintenance/Life Safety)

Throughout campus there are areas where the flooring has deteriorated to the point that it is unsightly and in some instances unsafe. The proposed work will remove damaged flooring and replace it with a new and appropriate floor covering.

- **Campus Wide Asbestos Abatement** **\$920,000**

(Deferred Maintenance & Renovation)

There are many buildings on the University Campus that still contain asbestos throughout their construction materials. Much of the asbestos containing materials have been encapsulated, but require abatement any time work is performed in the area.

- **Campus Heat Upgrade** **\$2,000,000**

(Deferred Maintenance)

With the installation of the new low pressure boiler in the heating plant, Western is taking the first steps in reducing the number of man hours required to operate the heating plant. A new low pressure boiler, installed spring 2018, will allow the plant staff to perform necessary preventative maintenance throughout the campus mechanical systems during the spring, summer, and fall. The next step in reducing dependence on the high pressure boiler system is to install low pressure hot water boilers in four major State side areas. These include Block Hall, Administration/Library/STC, Main Hall, and Roe House. Each of the four sites currently utilizes hot water generated by a steam to water heat exchanger in the respective mechanical rooms. Site specific high efficiency water boilers will eliminate hundreds of feet of aging and leaky steam and condensate lines. This will greatly increase the efficiency of the campus heating system and lower utility bills while providing increased maintenance hours as well as a more reliable system. The Auxiliary buildings and a couple state side buildings would continue to be served by the low pressure steam boiler in the heating plant with the high pressure boiler acting as emergency backup.

Each site will need a natural gas service installed, the existing heat exchangers removed, and new boilers installed. Multiple small boilers will be installed in each location to provide efficient operation in the shoulder seasons and offer mechanical redundancy during the coldest months.

- **Building Controls Upgrade**

**\$80,000**

(Deferred Maintenance)

Upgrade building controls in the STC building. The STC building is the last State building on campus to still utilize the old R2 building controls. These controls need to be upgraded to the same system as the rest of campus in order to provide better occupant comfort and mechanical efficiency in the building. This would include upgrading the controls for three large air handling units and several VAV units throughout the building.